

### **ABSTRACT**

Manipulating a vehicle body panel includes utilizing a base plate, left and right screw rods, a motor, and clamping units. The base plate is connected to the arm of the robot. The left and right screw rods are rotatably mounted below the base plate by bearing blocks and each of the screw rods has a driven helical gear at an interior end thereof. The motor is disposed central to and above the base plate and has a rotating shaft. A driving helical gear is formed at an end of the rotating shaft and is engaged with both of the driven helical gears. The clamping units are respectively mounted to the left and right screw rods by a screw block. The clamping units clamp the vehicle body panel by laterally moving with respect to the base plate and move the vehicle body panel up and down.